WO 2002049637 A1 20020627 WO 2001-IN221 20011218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: IN 2000-MA1085 A 20001218
IN 2000-MA1086 A 20001218

AB The invention provides a novel **soft gelatin capsule** comprising a fill material consisting essentially of **S-adenosylmethionine** (I) salt disposed within an enteric coated **soft gelatin** film. A **capsule** contained I 200, **stearic acid** 84.77, **gel** oil 125, dicalcium phosphate 75.0, ascorbic acid 1.1, anhyd. citric acid 1.1, **methylparaben** 2.2, **Pr paraben** 0.22, **butylated hydroxy anisole** 1.1, **butylated hydroxy toluene** 1.1, and soybean oil q.s. 1280 mg.

IT **57-11-4, Stearic acid**, biological studies
67-63-0, Isopropyl alcohol, biological studies
75-09-2, Dichloromethane, biological studies
94-13-3, Propyl paraben 99-76-3, Methylparaben 128-37-0, Butylated hydroxy toluene, biological studies **500-38-9, Ndga 9005-65-6, Polyoxyethylene sorbitan monooleate 18641-57-1, Glyceryl behenate 25013-16-5, Butylated hydroxy anisole 29908-03-0 31566-31-1**, Glycerylmonostearate **36653-82-4, Cetyl alcohol**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**soft-gelatin capsule** comprising adenosylmethionine)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:425331 HCAPLUS
DOCUMENT NUMBER: 136:395959
TITLE: Antiinflammatory/analgesic method and topical composition including penetration enhancers to treat musculoskeletal disorders
INVENTOR(S): Petrus, Edward J.
PATENT ASSIGNEE(S): Advanced Medical Instruments, USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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=> d l40 ibib abs hitrn 1-27

=> d que stat l40
L2             1 SEA FILE=REGISTRY ABB=ON  29908-03-0
L3             1 SEA FILE=REGISTRY ABB=ON  "S-ADENOSYLMETHIONINE CHLORIDE"/CN
L4             1 SEA FILE=REGISTRY ABB=ON  "S-ADENOSYLMETHIONINE IODIDE"/CN
L5             3 SEA FILE=REGISTRY ABB=ON  L2 OR L3 OR L4
L6             1 SEA FILE=REGISTRY ABB=ON  "STEARIC ACID"/CN
L7             1 SEA FILE=REGISTRY ABB=ON  "CARNUBA WAX"/CN
L8             1 SEA FILE=REGISTRY ABB=ON  BEESWAX/CN
L9             1 SEA FILE=REGISTRY ABB=ON  "POLYOXYETHYLENE SORBITAN MONOOLEATE"
                 /CN
L10            1 SEA FILE=REGISTRY ABB=ON  "CETYL ALCOHOL"/CN
L11            1 SEA FILE=REGISTRY ABB=ON  "GLYCERYL MONOSTEARATE"/CN
L12            1 SEA FILE=REGISTRY ABB=ON  "CETOSTEARYL ALCOHOL"/CN
L13            2 SEA FILE=REGISTRY ABB=ON  "GLYCERYL BEHENATE"/CN
L14            9 SEA FILE=REGISTRY ABB=ON  L6 OR L7 OR L8 OR L9 OR L10 OR L11
                 OR L12 OR L13
L15            1 SEA FILE=REGISTRY ABB=ON  DICHLOROMETHANE/CN
L16            1 SEA FILE=REGISTRY ABB=ON  "ISOPROPYL ALCOHOL"/CN
L17            2 SEA FILE=REGISTRY ABB=ON  L15 OR L16
L18            1 SEA FILE=REGISTRY ABB=ON  "ARACHIS OIL"/CN
L19            1 SEA FILE=REGISTRY ABB=ON  ("WHEAT GERM OIL"/CN OR "WHEAT GERM
                 OILS"/CN)
L20            1 SEA FILE=REGISTRY ABB=ON  "CORN OIL"/CN
L21            1 SEA FILE=REGISTRY ABB=ON  "RICE BRAN OIL"/CN
L22            4 SEA FILE=REGISTRY ABB=ON  L18 OR L19 OR L20 OR L21
L23            1 SEA FILE=REGISTRY ABB=ON  NDGA/CN
L24            1 SEA FILE=REGISTRY ABB=ON  "BUTYLATED HYDROXYTOLUENE"/CN
L25            1 SEA FILE=REGISTRY ABB=ON  "BUTYLATED HYDROXYANISOLE"/CN
L26            3 SEA FILE=REGISTRY ABB=ON  L23 OR L24 OR L25
L27            1 SEA FILE=REGISTRY ABB=ON  METHYLPARABEN/CN
L28            1 SEA FILE=REGISTRY ABB=ON  PROPYLPARABEN/CN
L29            2 SEA FILE=REGISTRY ABB=ON  L27 OR L28
L31            1 SEA FILE=HCAPLUS ABB=ON   (L5 OR S(W)ADENOSYLMETHIONINE OR
                 (MONOSULFATE OR MONOSULPHATE OR DISULFATE OR DISULPHATE)(W)TOSY
                 LATE) AND (SOFTGEL OR SOFT(W)GEL)
L33           64 SEA FILE=HCAPLUS ABB=ON   (L5 OR S(W)ADENOSYLMETHIONINE?) AND
                 (?CAPSUL? OR ?DRUG?(W)?DELIVER?)
L34            8 SEA FILE=HCAPLUS ABB=ON   L33 AND (GEL? OR ?SOFTGEL? OR ?SOFT
                 GEL?)
L35            4 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
                 (L17 OR DICHLOROMETHAN? OR ISOPROPYL ALCOHOL OR ISOPROPYLALCOHO
                 L OR ISOPROPANOL)
L36            3 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
                 (L22 OR (SOYA OR SOY OR ARACHIS OR WHEAT(W)GERM OR CORN OR
                 RICE(W)BRAN)(W)OIL)
L37            3 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
                 (L26 OR NDGA OR (BUTYL?(W)HYDROXY)(W)(TOLUEN? OR ANISOL?))
L38            2 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
                 (L29 OR (METHYL OR PROPYL)(W)PARABEN OR METHYLPARABEN OR
                 PROPYLPARABEN)
L39           13 SEA FILE=HCAPLUS ABB=ON   (L5 OR S(W)ADENOSYLMETHIONINE?) AND
                 (L14 OR STEARIC ACID OR (CARNUABA OR CARNUBA OR BEE?)(W)WAX OR
                 BEESWAX OR POLYOXYETHYLENE(W)SORBITAN(W)MONOOLEATE? OR (CETYL
                 OR CETOSTEARYL)(W)ALCOHOL? OR GLYCERYL(W)(MONOSTEARAT? OR
                 BEHENAT? OR BEHANAT?))
L40           27 SEA FILE=HCAPLUS ABB=ON   L31 OR L34 OR L35 OR L36 OR L37 OR
```

L38 OR L39

L40 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:595343 HCAPLUS
DOCUMENT NUMBER: 137:150228
TITLE: Antiinflammatory compositions and methods for therapy through enhanced tissue regeneration
INVENTOR(S): Uhrich, Kathryn E.; Macedo, Braz
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002106345	A1	20020808	US 2000-732516	20001207

AB The invention provides methods of promoting healing through enhanced regeneration of tissue (e.g. hard tissue or soft tissue) by contacting the tissue or the surrounding tissue with an antiinflammatory agent, preferably in a controlled-release form, e.g. by dispersing the agent through a polymer matrix, appending the agent to a polymer backbone, or incorporating the agent directly into a biodegradable polymer backbone. These methods are useful in a variety of dental and orthopedic applications. Expts. are presented which demonstrate that implantation of a film comprising an arom. polyanhydride that hydrolyzes to form a therapeutically useful salicylate resulted in less swelling in tissues adjacent to the film and a decrease in the d. of inflammatory cells as compared to other polyanhydride films. Prepn. of e.g. poly[1,6-bis(o-carboxyphenoxy) hexane] is described.

IT **29908-03-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiinflammatory compns. and methods for therapy through enhanced tissue regeneration)

L40 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:487392 HCAPLUS
DOCUMENT NUMBER: 137:52405
TITLE: A novel **soft-gelatin capsule** comprising **S-adenosylmethionine** and a method for producing the same
INVENTOR(S): Rao, Canakapalli Bhaktavatsala; Chakrabarti, Prasanta Kumar; Ravishankar, Hema
PATENT ASSIGNEE(S): Orchid Chemicals and Pharmaceuticals Limited, India
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 6399093 B1 20020604 US 1999-314829 19990519

AB A method and compn. are disclosed for the treatment of musculoskeletal disorders in mammals by the application of a topical compn. comprising a permeation enhancing amt. of one or more penetration enhancers, and one or more bio-affecting agents to provide anti-inflammatory relief and analgesia to the applied body part.

IT **29908-03-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiinflammaotry/analgesic method and topical compn. including penetration enhancers to treat musculoskeletal disorders)

IT **94-13-3, Propyl paraben 99-76-3, Methyl paraben**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiinflammaotry/analgesic method and topical compn. including penetration enhancers to treat musculoskeletal disorders)

REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:384295 HCAPLUS
DOCUMENT NUMBER: 136:390996
TITLE: **Capsule** compositions containing S-adenosyl methionine or its salts
INVENTOR(S): Uchida, Yosuke; Miya, Toyofumi; Sato, Koji; Yokoyama, Atsushi; Fukazawa, Takehito; Sugii, Yoshihisa
PATENT ASSIGNEE(S): Kohjin Co., Ltd., Japan; Miyako Kagaku Co., Ltd.; Aliment Industry Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002145783	A2	20020522	JP 2000-338007	20001106

AB The invention provides a **capsule** compn. contg. S-adenosyl methionine or its salt as an active ingredient, wherein the S-adenosyl methionine is dispersed in an oily soln., and **encapsulated** in a **gelatin**-based **capsule** shell. A dispersion contg. sunflower oil 60, glycerin fatty acid ester 2.5, **beeswax** 2.5, and S-adenosyl methionine p-toluenesulfonate disulfate 35 % was **encapsulated** a **gelatin capsule**, and tested its storage stability.

IT **29908-03-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**capsule** compns. contg. S-adenosyl methionine or its salts dispersed in oily solns.)

L40 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:903816 HCAPLUS
DOCUMENT NUMBER: 136:42843
TITLE: Compositions, kits, and methods for promoting defined health benefits
INVENTOR(S): Kern, Kenneth Norman; Heisey, Matthew Thomas
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093847	A2	20011213	WO 2001-US17714	20010601

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-586213 A 20000602
US 2001-760280 A 20010112

AB The present invention is directed to compns. comprising: (a) a first component selected from the group consisting of **gelatin**, cartilage, amino sugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, **S-adenosylmethionine**, salts and mixts.; and (b) a second component comprising a cation source selected from the group consisting of calcium, potassium, magnesium, and mixts. and an edible acid source. The present invention is further directed to food, beverage, pharmaceutical, over-the-counter, and dietary supplement products, which comprise the present compns. The invention also relates to kits comprising the present compns. and information that use of the compn. promotes one or more of the presently defined health benefits, including joint health, bone health, cardiac health, and anti-inflammation. The present invention addnl. relates to methods of treating joint function, bone function, cardiac function, or inflammation comprising administering to a mammal a compn. as defined herein. Thus, hard lemon candies are prepd. by combining the following components as indicated: sugar 200, light corn syrup 63, water 60, lemon flavor glucosamine-HCl 16, and calcium citrate malate 14.9 g.

IT **29908-03-0**
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and kits for promoting defined health benefits)

L40 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:903788 HCAPLUS
DOCUMENT NUMBER: 136:19486
TITLE: Kits and methods for optimizing the efficacy of chondroprotective compositions
INVENTOR(S): Sarama, Robert Joseph; Harris, Judith Lynn; Spence, Kris Eugene
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093833	A2	20011213	WO 2001-US17721	20010601

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-586514 A 20000602

AB The present invention is directed to kits which are useful for promoting one or more health benefits including, for example, joint health, bone health, cardiac health, and/or anti-inflammation. In particular, the present kits comprise: (a) a compn. comprising one or more chondroprotective agents and water; and (b) information selected from the group consisting of: (i) dose-form information; (ii) instruction or suggestion of ingestion of the compn. within about 4 h of ingestion of a food or beverage; and (iii) combinations thereof. The chondroprotective agent is selected from **gelatin**, cartilage, amino sugars, glycosaminoglycans, methylsulfonylmethane, precursors of methylsulfonylmethane, **S-adenosylmethionine**, and their salts. The present invention is further directed to kits comprising: (a) a compn. comprising one or more chondroprotective agents and at least about 80% water; and (b) a sep. food or beverage. The present invention also relates to methods of enhancing a benefit assocd. with a compn. comprising one or more chondroprotective agents and water, the method comprising administering to a mammal the compn. within about 4 h of administration of a food or beverage. For example, a ready-to-drink beverage compn. was prepd. contg. (by wt.) glucosamine-HCl 3.2%, fructose 9.3%, thickener 0.04%, calcium citrate maleate 2.3%, natural flavors 0.02%, ascorbic acid 0.16%, citric acid 0.35%, and water up to 100%.

IT **29908-03-0**
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(kits and methods for optimizing the efficacy of chondroprotective compns.)

L40 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:434854 HCAPLUS
DOCUMENT NUMBER: 135:51045
TITLE: Therapeutic compositions containing anti-inflammatory agents and biodegradable polyanhydrides
INVENTOR(S): Uhrich, Kathryn; Macedo, Braz
PATENT ASSIGNEE(S): Rutgers, the State University of New Jersey, USA; University of Medicine and Dentistry of New Jersey
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001041753	A2	20010614	WO 2000-US33378	20001207
WO 2001041753	A3	20020912		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-455861 A 19991207

AB Methods of promoting healing through enhanced regeneration of tissue (e.g. hard tissue or soft tissue) by contacting the tissue or the surrounding tissue with an antiinflammatory agent are useful in a variety of dental and orthopedic applications. Thus, poly[1,6-bis(o-carboxyphenoxy)hexane] was prepd. in a series of steps by the treatment of salicylic acid with 1,6-dibromohexane, and polymn. of the resulting 1,6-bis(o-carboxyphenoxy)hexane. The polymer was characterized by glass transition temp. measurements and then subjected to compression molding.

IT **29908-03-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (therapeutic compns. contg. antiinflammatory agents and biodegradable polyanhydrides)

L40 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:434848 HCAPLUS
DOCUMENT NUMBER: 135:51044
TITLE: Pharmaceutical preparation for treating tumor diseases
INVENTOR(S): Ghyczy, Miklos; Hager, Joerg; Wendel, Armin
PATENT ASSIGNEE(S): Rhone-Poulenc Rorer Gmbh, Germany
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001041747	A2	20010614	WO 2000-EP11761	20001125
WO 2001041747	A3	20020207		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 19959546	A1	20010621	DE 1999-19959546	19991209
EP 1239862	A2	20020918	EP 2000-979624	20001125

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2001021704	A1	20010913	US 2000-731787	20001208

PRIORITY APPLN. INFO.: DE 1999-19959546 A 19991209
WO 2000-EP11761 W 20001125

AB The invention relates to a pharmaceutical prepn. contg. at least one active substance that is cytostatically active, at least one biol. electron acceptor, and the customary pharmaceutical additives. The invention also relates to the use of said prepn. for treating tumor diseases, in particular, for treating cancer. Electron acceptors are betaine, phospholipids, their derivs. etc. Thus 100 g flavopiridol-HCl, 2000 g phosphatidylcholine, 40 g distearoylphosphatidylglycerol, and 250 g betaine linoleate were dispersed in 10 L ethanol; liposomes were formed. The dispersion was added to a soln. of 2 kg maltose in 2 L water, and homogenized. After filtration the dispersion was filled into vials and freeze-dryed to yield 100 mg flavopiridol per vial.

IT **57-11-4D, Stearic acid,** reaction with betaine
29908-03-0, S-Adenosyl-L-methionine
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pharmaceutical prepn. for treating tumor diseases)

L40 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:161116 HCAPLUS
DOCUMENT NUMBER: 132:199074
TITLE: Pharmaceutical and/or diet product
INVENTOR(S): Ghyczy, Miklos; Boros, Mihaly
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012071	A2	20000309	WO 1999-DE2691	19990827
WO 2000012071	A3	20000615		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19839441	A1	20000302	DE 1998-19839441	19980829
DE 19839443	A1	20000302	DE 1998-19839443	19980829
AU 2000010295	A1	20000321	AU 2000-10295	19990827

PRIORITY APPLN. INFO.: DE 1998-19839441 A 19980829
DE 1998-19839443 A 19980829
DE 1999-19919979 A 19990430
WO 1999-DE2691 W 19990827

AB A pharmaceutical or diet product, esp. for prophylaxis and/or therapy of disorders caused by insufficient O supply, secondary effects of anti-inflammatory active substances, and prophylaxis or therapy of disorders of energy metab., contains .gtoreq.1 compd. having a (CH2)2N+Me3 group and/or **S-adenosylmethionine**. These compds. act

as scavengers for excess electrons produced metabolically during O deficiency and thereby prevent O radical formation and protect against cell damage. Suitable (CH2)2N+Me3-contg. compds. include betaine, acetylcholine, choline, glycerophosphocholine, phosphatidylcholine, lysophosphatidylcholine, carnitine, acylcarnitines, and sphingomyelins. Thus, tablets were prepd. contg. diclofenac Na 50.0, betaine-HCl 113.64, microcryst. cellulose 30.0, **gelatin** 3.5, starch 30.86, and Mg stearate 2.0 mg.

IT **29908-03-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical and/or diet product against hypoxia)

L40 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:144082 HCAPLUS
DOCUMENT NUMBER: 132:185439
TITLE: Oral combination drug containing NSAIDs.
INVENTOR(S): Ghyczy, Miklos; Boros, Mihaly
PATENT ASSIGNEE(S): Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19839443	A1	20000302	DE 1998-19839443	19980829
WO 2000012071	A2	20000309	WO 1999-DE2691	19990827
WO 2000012071	A3	20000615		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2000010295	A1	20000321	AU 2000-10295	19990827

PRIORITY APPLN. INFO.:
DE 1998-19839441 A 19980829
DE 1998-19839443 A 19980829
DE 1999-19919979 A 19990430
WO 1999-DE2691 W 19990827

AB An oral anti-inflammatory drug combination with minimal side effects contains a NSAID and **S-adenosylmethionine** and/or a substance contg. a N+Me3 group (not a surface-active substance), or mixts. thereof. The latter group of compds. protects the gastric epithelium from NSAID-induced gastric ulcers and bleeding. Suitable trimethylammonium compds. include betaine and its derivs., acetylcholine, choline, glycerophosphocholine, carnitine, acetyl-L-carnitine, and sphingomyelin and their mixts. with phosphatidylcholines. Thus, a mixt. of acetylsalicylic acid 80.00, betaine 160.00, microcryst. cellulose 15.00, corn starch 23.25, and **stearic acid** 1.75 parts was compressed into 175-mg tablets, each contg. 50 mg acetylsalicylic acid. Intragastric administration of 200 mg acetylsalicylic acid into rats

increased the microvascular permeability in the gastric mucosa; this change was reversed by subsequent administration of a fluid contg. 100 mg betaine/kg body wt. and 5% lecithin.

IT **29908-03-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral combination drug contg. NSAIDs)

L40 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:483380 HCAPLUS
DOCUMENT NUMBER: 131:111442
TITLE: Combinations of tyrosine, methylating agents, phospholipids, fatty acids, and St. John's wort for the treatment of mental disturbances
INVENTOR(S): Henderson, Todd R.; Corson, Barbara E.
PATENT ASSIGNEE(S): Nutramax Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937155	A1	19990729	WO 1999-US1581	19990126
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9924702	A1	19990809	AU 1999-24702	19990126
US 2001033872	A1	20011025	US 2001-862589	20010523

PRIORITY APPLN. INFO.:
US 1998-72721P P 19980127
US 1998-75998P P 19980226
US 1998-112993P P 19981218
US 1999-237222 B1 19990126

AB Therapeutic compns. are provided for the treatment or prevention of mental disturbances such as depressive states and for regulating the level of certain neurotransmitters and thereby improving the function of the central nervous system and cognitive function in humans and other animals. The therapeutic compns. comprise any two or more of tyrosine, one or more methylating agents, one or more phospholipids, one or more fatty acids and St. John's Wort (Hypericum perforatum), whether naturally, synthetically, or semi-synthetically derived. Also provided is a method of administering these compns. to humans or animals in need thereof.

IT **57-11-4, Stearic acid,** biological studies
29908-03-0, S-Adenosylmethionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tyrosine, methylating agent, phospholipid, fatty acid, and St. John's wort for treatment of mental disturbance)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:634375 HCAPLUS
DOCUMENT NUMBER: 129:312032
TITLE: Butylated hydroxytoluene modulates DNA methylation in rats
AUTHOR(S): Vanyushin, Boris F.; Lopatina, Nadezhda G.; Wise, Carolyn K.; Fullerton, Floyd R.; Poirier, Lionel A.
CORPORATE SOURCE: Division of Molecular Basis of Ontogenesis, A.N. Belozersky Institute of Physico-Chemical Biology, M.V. Lomonosov Moscow State University, Moscow, Russia
SOURCE: European Journal of Biochemistry (1998), 256(3), 518-527
CODEN: EJBCAI; ISSN: 0014-2956
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The major observation of this investigation is that a single i.p. injection of butylated hydroxytoluene (BHT, 60 mg/kg body mass) results within a few hours in a strong increase in nuclear DNA(cytosine-5)-Me transferase (Me transferase) activity in the liver, kidneys, heart, spleen, brain and lungs of male rats. In most organs, the rise in Me transferase activity is obsd. as early as 4 h after BHT injection, it reaches a max. at 8 h and then, except for lungs and brain, gradually decreases to its initial level at 16 h. At the max. induction times, the Me transferase activity in liver, kidney and spleen increases by about 16-, 3- and 5-fold, resp. A second BHT injection at 96 h results in a secondary rise in hepatic Me transferase activity. Isoelec. focusing electrophoresis of control rat liver nuclear exts. showed Me transferase activity in the pI 4.7 and 7.4 protein fractions. Both fractions methylate calf thymus DNA better than they do Drosophila melanogaster DNA. In similar exts. from BHT-treated rats, the Me transferase activity is found in three protein fractions with pI values equal to 4.0, 6.2 and 9.5, resp. Most of the Me transferase fractions from the livers of BHT-treated rats methylate the completely unmethylated D. melanogaster DNA better than they do calf thymus DNA. Thus, BHT induces Me transferase activity that preferably provides de novo DNA methylation. BHT injection had no significant effect on the hepatic contents of **S-adenosylmethionine** (AdoMet), S-adenosylhomocysteine (AdoHcy) and AdoMet/AdoHcy ratios. While BHT injection did not alter the 5-methyldeoxycytidine content in liver DNA, it did appear to alter such content in other organs. BHT appears to cause the reversible changes in the methylation status of an internal cytosine residue in some CCGG sites of the rat liver cytosine DNA-Me transferase gene. BHT induces also hypomethylation of the renal Me transferase gene and the hepatic c-Ha-ras gene. While BHT also increases the hepatic mRNA transcripts for the **S-adenosylmethionine** synthetase and the p53 genes, it had no detectable effects on the corresponding mRNA transcripts for Me transferase homologous to murine Me transferase. Thus, BHT induces tissue-specific reversible changes in Me transferase activity and methylation of total DNA and various genes in rats. A strong increase in Me transferase activity in rat liver is accompanied with BHT-induced change in the Me transferase set obsd. in this organ.

IT **128-37-0**, BHT, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(butylated hydroxytoluene modulates DNA methylation in rats)
IT **29908-03-0, S-Adenosylmethionine**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(liver; butylated hydroxytoluene modulates DNA methylation in rats)

L40 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:613444 HCAPLUS
DOCUMENT NUMBER: 129:265466
TITLE: Spray formulations of antihyperalgesic opiates and method of treating topical hyperalgesic conditions therewith
INVENTOR(S): Maycock, Alan L.; Chang, An-chih; Farrar, John J.; Balogh, Imre
PATENT ASSIGNEE(S): Adolor Corp., USA
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5811078	A	19980922	US 1997-818559	19970314
US 5798093	A	19980825	US 1997-892389	19970714

PRIORITY APPLN. INFO.: US 1997-818559 A2 19970314
OTHER SOURCE(S): MARPAT 129:265466
AB Spray formulations of anti-hyperalgesic opiates comprise an anti-hyperalgesic opiate having a peripheral selectivity of 251 to 1,280 in an aq. alc. mixt. contg. up to 15% ethanol, propanol, and/or **isopropanol**. Thus, 100 g of 4-(p-chlorophenyl)-4-hydroxy-N,N-dimethyl-.alpha.,.alpha.-diphenyl-1-piperidinebutyramide was dissolved in 2 L of a 5 % ethanol/95 % water mixt. with agitation and the soln. was transferred to a pump action spray bottle.
IT **67-63-0, Isopropanol**, biological studies
29908-03-0, S-Adenosylmethionine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical sprays contg. anti-hyperalgesic opiates and active ingredients to promote wound healing)

L40 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:162631 HCAPLUS
DOCUMENT NUMBER: 128:267821
TITLE: Investigation of methionine metabolism in peripheral blood mononuclear cells of Irish hyperhomocysteinemic subjects
AUTHOR(S): Betts, Vicki; Collins, Patrick B.; Meleady, Raymond; Graham, Ian
CORPORATE SOURCE: Department of Biochemistry, Royal College of Surgeons in Ireland, Dublin, 2, Ire.
SOURCE: Biochemical Society Transactions (1998), 26(1), S10
CODEN: BCSTB5; ISSN: 0300-5127
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors describe a method for the investigation of methionine metab. in peripheral blood mononuclear cells of Irish humans with mild

hyperhomocysteinemia. PMBC of both non- and hyperhomocysteinemic subjects were isolated from whole blood by the method of A. Boyum (Scand. J. Clin. Lab. Invest. 21, 77-99, 1968), cultured in RPMI 1640 media contg. 10% (vol./vol.) fetal calf serum, and 10 .mu.g/mL of phytohemagglutinin at a d. of 5 x 105 cells/mL at 37 C, in a 5% (vol./vol.) CO2/air atm., for 68-72 h. 5 .mu.Ci of [35S]-methionine (.apprx.0.05 .mu.Ci/nmole) was then added to the cell culture. At various time points the cells were washed and harvested and the enzyme activity was abolished by the addn. of 500 .mu.l of ice-cold (100%) ethanol. The ethanol was removed under vacuum and 100 .mu.l of a soln. contg. 0.01M perchloric acid and an amino acid mix contg. 0.1 .mu.mole each of methionine (met), homocysteine (Hcy), cystathionine (Cysta), cysteine (Cys), S-adenosyl homocysteine (SAH) and S-adenosyl methionine (SAM) in 0.1% (vol./vol.) mercaptoethanol was added to the resulting mixt. The cell debris and protein pptd. by this procedure was removed by centrifugation at 5000g for 5 min. The six amino acids were resolved by two-dimensional thin layer chromatog. on cellulose plates, using **isopropanol**:25 mM phosphate buffer. PH 3.2:formic acid (75:25:6) as the solvent in the first dimension and satd. phenol ammonium hydroxide (31:3) in the second dimension. The position of the amino acids were detd. by staining with ninhydrin. These spots were scraped off the plate into scintillation vials and the radioactivity (counts per min (CPM)) was detd. using 10 mL of scintillant. A metabolite profile was constructed by plotting the percentage of the total radioactivity recovered in each of the major metabolites at various time points. The profile for a hyperhomocysteinemic subject with a genotype indicative of a thermolabile variant of methylenetetrahydrofolate reductase is compared to a control subject.

IT **29908-03-0**, S-Adenosyl methionine
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(methionine metab. in peripheral blood mononuclear cells of Irish hyperhomocysteinemic subjects)

L40 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:694125 HCAPLUS
DOCUMENT NUMBER: 126:128585
TITLE: Inhibition of DNA methyltranferase by microbial inhibitors and fatty acids
AUTHOR(S): Suzuki, Kaitarou; Nagao, Kazuhiko; Tokunaga, Jin; Katayama, Naoko; Uyeda, Masaru
CORPORATE SOURCE: Fac. Pharmaceutical Sci., Kumamoto Univ., Kumamoto, 862, Japan
SOURCE: Journal of Enzyme Inhibition (1996), 10(4), 271-280
CODEN: ENINEG; ISSN: 8755-5093
PUBLISHER: Harwood
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Streptomyces sp. strain No. 560 produces 4 kinds of DNA methyltransferase inhibitors in the culture filtrate. One of them, DMI-4 was distinguished from DMI-1, -2 and -3 previously reported with respect to certain properties. DMI-4 was considered to be a triglyceride consisting of the fatty acids, anteisopentadecanoic acid (C15:0), isopalmitic acid (C16:0), and isostearic acid (C18:0), from the results of gas chromatog. anal. Since DMI-4 contains 3 mols. of fatty acid, and the previously reported DMI-1, 8-methylpentadecanoic acid, is analogous to a fatty acid, the inhibitory activity of various fatty acids and their Me esters was examd. against DNA methyltransferase EcoRI (M. EcoRI). Oleic acid (C18:1) was

found to be a potent inhibitor of M. EcoRI. The inhibitory activity of oleic acid was shown to be pH- and temp.-dependent and inhibited M. EcoRI in a noncompetitive manner with respect to DNA or **S-adenosylmethionine** (SAM). The no. of C atoms and double bonds in the fatty acid mol. affected the inhibitory activity, but their Me esters were not inhibitors. The results suggested that the length of the C chain, the no. of double bonds, and the presence of a carboxyl group and branched Me group in the fatty acid mol. may play an important role in the inhibition of DNA methyltransferase.

IT **57-11-4**, Octadecanoic acid, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of DNA methyltranferases by microbial inhibitors and fatty acids)

L40 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:403030 HCAPLUS
DOCUMENT NUMBER: 121:3030
TITLE: Experimental databases on inhibition of the bacterial mutagenicity of 4-nitroquinoline 1-oxide and cigarette smoke
AUTHOR(S): Camoirano, Anna; Balansky, Roumen M.; Bennicelli, Carlo; Izzotti, Alberto; D'Agostini, Francesco; De Flora, Silvio
CORPORATE SOURCE: Inst. Hygiene, Univ. Genoa, Genoa, I-16132, Italy
SOURCE: Mutation Research (1994), 317(2), 89-109
CODEN: MUREAV; ISSN: 0027-5107
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two antimutagenicity databases were prepd. by applying a co-treatment procedure to the Salmonella reversion assay. Ninety compds. belonging to various chem. classes were quant. tested for antimutagenicity towards the direct-acting mutagen 4-nitroquinoline 1-oxide (4NQO) in strain TA100 of S. typhimurium and 63 of them were addnl. tested for antimutagenicity towards unfractionated mainstream cigarette smoke (CS) in strain TA98, in the presence of S9 mix. Twelve compds. (13.3%) inhibited 4NQO mutagenicity by at least 50%, with a MID50 (dose inhibiting 50% of mutagenicity) varying over a 1226-fold range. Twenty-six compds. (41.3%) inhibited CS mutagenicity, with a MID50 varying over a 520-fold range. Three compds. only, i.e., bilirubin, curcumin and myricetin, were capable of inhibiting the mutagenicities of both 4NQO and CS. However, myricetin and the other flavonoid rutin were at the same time mutagenic by inducing frameshift mutations following metabolic activation. There was a rather rigorous selectivity of antimutagenicity data depending on the chem. class of inhibitors and it was possible to discriminate protective effects within several pairs or series of structurally related compds. For instance, all eight thiols and aminothiols inhibited 4NQO mutagenicity, which contrasted with the inactivity of the remaining 17 sulfur compds. tested, all of them lacking a free sulfhydryl group. The mutagenicity of CS was consistently inhibited by the majority of phenols (eight out of 10 tested) and by all two isothiocyanates, two dithiocarbamates, three indole derivs., three tetrapyrrole compds. and three flavonoids tested. Although the results obtained cannot be extrapolated to other mutagens or test systems, they may provide a useful source of information for research in the area of antimutagenesis and for the development of chemopreventive agents.

IT **128-37-0**, Bht, biological studies **25013-16-5**, Bha
29908-03-0, **S-Adenosylmethionine**

RL: BIOL (Biological study)
(exptl. databases on inhibition of bacterial mutagenicity of nitroquinoline oxide and cigarette smoke in relation to)

L40 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:73099 HCAPLUS
DOCUMENT NUMBER: 120:73099
TITLE: Nod factor production by Azorhizobium caulinodans strain ORS571
AUTHOR(S): Holsters, M.; Geelen, D.; Goethal, K.; Van Montagu, M.; Geremia, R.; Prome, J. C.; Mergaert, P.
CORPORATE SOURCE: Lab. Genet., Univ. Gent, Ghent, B-9000, Belg.
SOURCE: Current Plant Science and Biotechnology in Agriculture (1993), 17(New Horizons in Nitrogen Fixation), 191-6
CODEN: CPBAE2; ISSN: 0924-1949
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Although Azorhizobium is taxonomically rather divergent from Rhizobium and Bradyrhizobium, it does harbor several similar nod genes and thus it came as no surprise that upon induction of nod gene expression, lipo-oligosaccharide Nod factors were found secreted in the culture medium. The NodARc factors are chitin tetramers or pentamers N-acylated at the non-reducing end with either vaccenic or **stearic acid** and carrying several unusual substitutions. Part of the pentamers are branched at the reducing end with D-arabinose. The non-reducing end is substituted with an N-Me group in all mols. and a carbamoyl group on part of the pentamers and all of the tetramers. NodARc factors cause morphol. changes on Sesbania rostrata roots: induction of both root hair formation and meristematic foci at lateral root bases, the sites where upon bacterial infection the root nodules are formed. Some of the azorhizobial nod genes can be implied in Nod factor synthesis. The nodS gene most likely encodes a **S-adenosylmethionine** -dependent methyltransferase for Nod factor methylation. A gene nolK may be involved in the synthesis of an arabinosyl precursor for factor glycosylation at the reducing end; the NolK-deduced polypeptide has a NAD/NADP-binding motif and shows similarity to NAD/NADP-requiring sugar epimerases.

L40 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:142293 HCAPLUS
DOCUMENT NUMBER: 118:142293
TITLE: Purification of a 40-kilodalton methyltransferase active in the aflatoxin biosynthetic pathway
AUTHOR(S): Keller, N. P.; Dischinger, H. C., Jr.; Bhatnagar, D.; Cleveland, T. E.; Ullah, A. H. J.
CORPORATE SOURCE: Southern Reg. Res. Cent., U.S. Dep. Agric., New Orleans, LA, 70179, USA
SOURCE: Applied and Environmental Microbiology (1993), 59(2), 479-84
CODEN: AEMIDF; ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The penultimate step in the aflatoxin biosynthetic pathway of the filamentous fungi Aspergillus flavus and A. parasiticus involves conversion of sterigmatocystin to O-methylsterigmatocystin. An **S -adenosylmethionine**-dependent sterigmatocystin methyltransferase that catalyzes this reaction was purified to homogeneity (>90%) from 78-h-old mycelia of A. parasiticus SRRC 163. The purifn. of this sol.

enzyme was carried out by 5 **soft-gel** chromatog. steps: cell debris remover treatment, QMA ACELL chromatog., hydroxylapatite-Ultrogel chromatog., DEAE-Spherodex chromatog., and octyl-Avidgel chromatog., followed by MA7Q HPLC. SDS-PAGE of the protein peak from this step with Ag staining identified a single band with a mol. wt. of .apprx.40 kDa. This purified protein was distinct from a dimeric 168-kDa methyltransferase previously purified from the same fungal strain under identical growth conditions. The chromatog. behavior and N-terminal sequence of the 40-kDa enzyme were also distinct from those of the 168-kDa methyltransferase. The molar extinction coeff. of the 40-kDa enzyme at 278 nm was estd. to be 4.7 .times. 104 M-1 cm-1 in 50 mM K phosphate buffer (pH 7.5).

IT **29908-03-0**, S-Adenosyl-L-methionine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with sterigmatocystin methyltransferase of Aspergillus parasiticus, kinetics of)

L40 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:149365 HCAPLUS
DOCUMENT NUMBER: 116:149365
TITLE: Characterization of membrane fraction lipid composition and function of cirrhotic rat liver. Role of S-adenosyl-L-methionine
AUTHOR(S): Muriel, Pablo; Mourelle, Marisabel
CORPORATE SOURCE: Dep. Farmacol. Toxicol., IPN, Mexico City, Mex.
SOURCE: Journal of Hepatology (1992), 14(1), 16-21
CODEN: JOHEEC; ISSN: 0168-8278
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of S-adenosyl-L-methionine (SAM) administration on the lipid compn. of the membrane fraction obtained from livers of cirrhotic rats was studied. Four groups of animals were used: group 1 received CCl4 for 8 wk to induce cirrhosis. Animals in group 2 received 3 daily i.m. injections of SAM 20 mg/kg in addn. to CCl4. Groups 3 and 4 were control groups of SAM and vehicles. Seventy-two h after the end of treatment all animals were killed and livers were studied to measure glycogen, cAMP contents and to isolate membrane fractions. The membrane activity of Na+,K+- and Ca2+-ATPases was measured and the lipid content was analyzed in exts. Phospholipids were detd. by TLC and fatty acids by GC. Chronic CCl4 treatment led to increases in cholesterol and in the cholesterol/phospholipid ratio. Anal. of phospholipids revealed an increase in phosphatidylserines. Satd. fatty acids increased, while unsatd. decreased. The CCl4-treated group showed a decrease in glycogen and an increase in cAMP contents. Na+,K+- and Ca2+-ATPases activity were highly reduced in cirrhotic membranes. In the group receiving CCl4 + SAM the lipid compn. and the function of liver membrane fraction showed no difference compared to normal controls, except for fatty acid compn. which was similar to concns. in the CCl4-treated group. Glycogen depletion was only partially prevented whereas cAMP levels were normalized in the CCl4 + SAM group. The results showed that membrane lipid alterations were accompanied by changes in the activity of enzymes embedded in the membrane fraction derived from CCl4-cirrhotic rats. The beneficial effects of SAM treatment obsd. in cirrhotic rats, demonstrated the importance of biol. transmethylation in preserving the lipid compn. of hepatocyte membranes and in maintaining the normal function of the liver.

IT **57-11-4, Stearic acid**, biological studies
RL: BIOL (Biological study)
(of hepatocyte cell membrane fractions, in cirrhosis, adenosyl

methionine effect on)
IT **29908-03-0,** S-Adenosyl-L-methionine
RL: BIOL (Biological study)
(phospholipid compn. of hepatocyte cell membrane fractions response to, in cirrhosis)

L40 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:532467 HCAPLUS
DOCUMENT NUMBER: 115:132467
TITLE: Membrane fluidity and membrane lipid composition in rat liver sinusoidal and canalicular membrane vesicles
AUTHOR(S): Kurumi, Yoshiaki
CORPORATE SOURCE: Sch. Med., Kinki Univ., Osaka, Japan
SOURCE: Kinki Daigaku Igaku Zasshi (1991), 16(1), 139-48
CODEN: KDIZDD; ISSN: 0385-8367
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Membrane fluidity and phospholipid compn. of sinusoidal membrane vesicles (SMV) and canalicular membrane vesicles (CMV) of rat hepatocytes were studied to investigate their relevance to the topol. difference in membrane function. Membrane fluidity was measured by fluorescence polarization of 1,6-diphenyl-1,3,5-hexatrien (DPH) and by the spin label method using 5-doxyl **stearic acid** (5-DSA) and 16-doxyl **stearic acid** (16-DSA) as probes. Fluidity of CMV was lower than that of SMV in the both methods. CMV had a higher total phospholipid content than SMV. Phospholipid compn. was detd. by a newly developed HPLC method. The level of sphingomyelin was higher and the level of phosphatidylcholine lower in CMV than SMV. The cholesterol level was higher in CMV than in SMV. These alterations of lipid compn. in CMV are considered to be related to the decrease in fluidity. Addn. of S-adenosyl-L-methionine (SAM), which is reported to improve cholestasis, to SMV resulted in an increase in fluidity and Na+,K+-ATPase activity. These changes may contribute to the choleretic effect of SAM.
IT **29908-03-0,** S-Adenosyl-L-methionine
RL: BIOL (Biological study)
(fluidity of membranes of liver sinusoid response to, phospholipid compn. in relation to)

L40 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:191788 HCAPLUS
DOCUMENT NUMBER: 114:191788
TITLE: Selenium biomethylation in an alkaline, saline environment
AUTHOR(S): Thompson-Eagle, E. T.; Frankenberger, W. T., Jr.
CORPORATE SOURCE: Dep. Soil and Environ. Sci., Univ. California, Riverside, CA, 92521, USA
SOURCE: Water Research (1991), 25(2), 231-40
CODEN: WATRAG; ISSN: 0043-1354
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Biomethylation of Se in evapn. pond water was studied and optimized in lab.-incubated mesocosms. Methylating microorganisms, present in all pond waters collected from the San Joaquin Valley, California, were inhibited by bactericides (10 mg/L crystal violet, 100 mg/L penicillin G, and a 1:1 mixt. of 50 mg/L penicillin G and 50 mg/L polymyxin B sulfate), but not by fungicides (100 mg/L cycloheximide, 200 mg/L nystatin and 50 mg/L sodium dichromate). The addn. of casein (4 g/L) increased bacterial nos. 10000-fold and stimulated biomethylation 26-fold. The provision of growth

matrixes (sand, glass beads or nylon polymers) stimulated Se biomethylation in unamended water but not in peptone-amended water. Biomethylation was optimal in a well-mixed, aerobic system amended with a protein source. Cofactors (10.mu.M homocysteine and 10.mu.M reduced glutathione) enhanced the prodn. of Me2Se in peptone-amended pond water. The species of inorg. Se present, SeO32- and SeO42-, had little effect on the methylation efficiency. Increasing the Se concn. to 1.9, 3.9, 11.9, 21.9, or 101.9 mg Se/L in peptone-amended pond water decreased the percentage of Se removed from 8 to 3.8, 2, 1.3, 0.7, and 0.1%, resp. Selenium removal ranged from 8 to 100% for peptone-amended pond waters contg. between 2.2 and 0.02 .mu.g Se/L, resp. Biomethylation was inhibited by 0.1M NO3- and NO2-, but addnl. SO42- (0.1, 1M) had no effect on DMSe release. It may be possible to apply these findings to the design of a bioreactor to deselenify agricultural drainage water.

IT **29908-03-0, S-Adenosylmethionine**
RL: PROC (Process)
(di-Me selenide formation by aquatic microorganisms in presence of, in evapn. pond waters in San Joaquin Valley, California)

L40 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:19646 HCAPLUS
DOCUMENT NUMBER: 110:19646
TITLE: 1,2-Dimethylhydrazine-induced premalignant alterations in the **S-adenosylmethionine** /S-adenosylhomocysteine ratio and membrane lipid lateral diffusion of the rat distal colon
AUTHOR(S): Halline, Allan G.; Dudeja, Pradeep K.; Brasitus, Thomas A.
CORPORATE SOURCE: Dep. Med., Univ. Chicago, Chicago, IL, USA
SOURCE: Biochim. Biophys. Acta (1988), 944(1), 101-7
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English

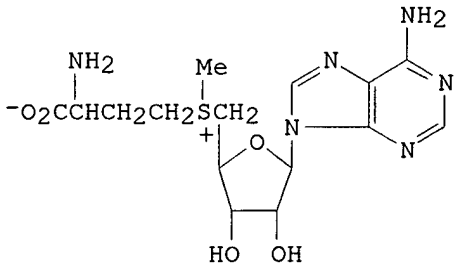
AB Male rats were s.c. injected with dimethylhydrazine (20 mg/kg/wk) or diluent for 5 wk. Animals from each group were killed, distal colonic tissue harvested and the levels of **S-adenosylmethionine** , S-adenosylhomocysteine, and decarboxylated **S-adenosylmethionine** measured by HPLC. The activity of methionine adenosyltransferase was also examd. in these tissues. Addnl., brush-border membranes were isolated from the distal colonocytes of control and treated animals and examd. and compared with respect to their phospholipid methylation activities as well as their lipid fluidity as assessed by the rotational mobilities of the probes 1,6-diphenyl-1,3,5-hexatriene and DL-12-(9-anthroyl)**stearic acid** and translational mobility of the fluorophore pyrenedecanoic acid. The results of these studies demonstrated: (1) phospholipid methyltransferase activity in rat colonic plasma membranes was increased concomitantly with increases in the cellular levels of **S-adenosylmethionine** and the **S-adenosylmethionine**/S-adenosylhomocysteine ratio in the distal colonic segment of treated-animals; and (2) the lateral diffusion of rat distal colonic brush-border membrane lipids, as assessed by the ratio of excimer/monomer fluorescence intensities of the fluorophore pyrenedecanoate, was also increased after dimethylhydrazine administration to these animals for 5 wk.

IT **29908-03-0, S-Adenosylmethionine**
RL: BIOL (Biological study)
(of distal colon, dimethylhydrazine effect on)

L40 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:443517 HCAPLUS
DOCUMENT NUMBER: 99:43517
TITLE: Preparation and stabilization of S-adenosyl-L-methionine
PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58049397	A2	19830323	JP 1981-148103	19810918

GI



I

AB Anticholesteremic S-adenosyl-L-methionine (I) [**29908-03-0**] is prepd. and stabilized by org. acids and Mg salts. Thus, 360 g baker's yeast was extd. with 1.8 L 1.5 N HClO4, and the ext. was subjected to column chromatog. contg. acidic cation exchanger Dowex 50WX8, eluted with H2SO4, passed through a column contg. activated C, eluted with H2SO4 followed by a H2SO4-MeOH mixt., the eluate concd., treated with MeOH to produce a white pptd., 4.8 g I sulfate [69673-08-1], which was isolated and dried. I sulfate in the presence of butyric acid [107-92-6] and MgSO4 was stable.

IT **57-11-4**, biological studies
RL: BIOL (Biological study)
(adenosylmethionine stabilization by magnesium sulfate and)

IT **29908-03-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and stabilization of)

L40 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:194627 HCAPLUS
DOCUMENT NUMBER: 98:194627
TITLE: Stabilization of hydrolysis prone labile organic reagents in liquid media
INVENTOR(S): Modrovich, Ivan
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 722,565, abandoned.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4372874	A	19830208	US 1980-206467	19801113
US 4153511	A	19790508	US 1977-764826	19770202
US 4310624	A	19820112	US 1977-775833	19770309
AT 43917	E	19890615	AT 1979-102058	19790621

PRIORITY APPLN. INFO.:
US 1976-667857 19760317
US 1976-722565 19760913
US 1977-764826 19770202
US 1977-775833 19770309
US 1978-919159 19780626
EP 1979-102058 19790621

AB A labile, org. reagent, which is unstable in aq. media and stable in a nonaq. media, is stabilized by dissolving the org. reagent in a water-miscible, org. solvent which is liq. at room temp. and which is nondegradatively reactive with the org. reagent to form a soln. of the org. reagent in the org. solvent. At least 1% of an inert, high-surface area particulate desiccant is added to the soln. for entrapping water with the desiccant so that the residual water content of the soln. is <0.5%. The desiccant can be removed from the soln. before sealing it. More than 1 org. reagent can be added to the solvent, and a solubilizing agent for the org. reagent can be used. The title method is esp. applicable to coenzymes, as well as other org. compds. For example, NAD was dissolved in H2O-free ethylene glycol. The soln. was stable at 25.degree. for 6-12 mo. and at 4-8.degree. for 2-4 yr.

IT **67-63-0**, uses and miscellaneous
RL: USES (Uses)
(as solvent, in org. reagents stabilization)

IT **29908-03-0**
RL: PROC (Process)
(stabilization of)

L40 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:436754 HCAPLUS
DOCUMENT NUMBER: 97:36754
TITLE: Stimulation of fatty acid methylation in human red cell membranes by phospholipase A2 activation
AUTHOR(S): Engelsen, Steinar J.; Zatz, Martin
CORPORATE SOURCE: Lab. Clin. Sci., Natl. Inst. Mental Health, Bethesda, MD, 20205, USA
SOURCE: Biochim. Biophys. Acta (1982), 711(3), 515-20
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nonpolar methylated products comprise .apprx.50% of the radioactive material extractable into CHCl3-MeOH after incubation of human red cell membranes with S-[methyl-3H]adenosylmethionine. One of these nonpolar products is fatty acid Me ester. The enzyme which synthesizes fatty acid Me ester had an apparent Km for **S-adenosylmethionine** of .apprx.0.6 .mu.M and a Vmax of .apprx.0.6 pmol/mg protein/30 min. Half-maximal activity was achieved upon addn. of .apprx.20 .mu.M Na oleate. Of the fatty acids tested, Na oleate increased most effectively

(6-fold) and arachidonic acid was ineffective. Evidence indicated that fatty acid methylation takes place on the cytoplasmic side of the plasma membrane. The reaction was demonstrable in intact cells incubated with [methyl-3H]methionine and increased upon addn. of Na oleate. Incubation of intact cells with melittin, a potent membrane phospholipase A2 activator from bee venom, increased fatty acid methylation several-fold. Fatty acid methylation appears to be one of the consequences of phospholipase A2 action in plasma membranes.

IT **57-11-4**, biological studies
RL: BIOL (Biological study)
(fatty acid methylation by human erythrocyte in response to)

IT **29908-03-0**
RL: RCT (Reactant)
(reaction of, with human fatty acid methylase, kinetics of)

L40 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1978:485586 HCAPLUS
DOCUMENT NUMBER: 89:85586
TITLE: Ornithine and **S-adenosylmethionine** decarboxylases in mouse epidermal cell cultures treated with tumor promoters
AUTHOR(S): Lichti, Ulrike; Yuspa, Stuart H.; Hennings, Henry
CORPORATE SOURCE: Div. Cancer Cause Prev., Natl. Cancer Inst., Bethesda, Md., USA
SOURCE: Carcinog. - Compr. Surv. (1978), 2(Mech. Tumor Promot. Cocarcinog.), 221-32
CODEN: CCSUDL; ISSN: 0145-0158
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Mouse epidermal cell cultures were treated with tumor promoters to det. the mechanism of action of these compds. by measuring ornithine decarboxylase (ODC) [9024-60-6] stimulation. 12-O-tetradecanoylphorbol 13-acetate (I) [16561-29-8] and other phorbol deriv. dose-dependently stimulated ODC in relation to their in vivo tumorigenic activity and in vivo and in vitro DNA synthesis stimulating activity. Several Tweens also stimulated ODC activity, but with poor correlation to tumor-promoting activity. Several other compds. with known or suspected promoting activity only slightly stimulated ODC. I unexpectedly inhibited **S-adenosylmethionine** decarboxylase [9036-20-8], possibly the cause for the onset of I stimulation of DNA synthesis in vitro.

IT **9005-65-6**
RL: BIOL (Biological study)
(ornithine decarboxylate of epidermal cell cultures response to, carcinogenicity in relation to)

L40 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1975:138191 HCAPLUS
DOCUMENT NUMBER: 82:138191
TITLE: Dietary induction of hepatic microsomal enzymes by thermally oxidized fats
AUTHOR(S): Andia, Ana M.; Street, Joseph C.
CORPORATE SOURCE: Dep. Chem. Biochem., Utah State Univ., Logan, Utah, USA
SOURCE: J. Agric. Food Chem. (1975), 23(2), 173-7
CODEN: JAFCAU
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Functional changes assocd. with the hepatomegaly commonly obsd. upon

feeding thermally oxidized (TO) fats were investigated. Rats were fed purified diets in which the fat consisted of fresh **corn oil**, TO oil, or the proportional amt. of nonurea adduct-forming material (NUAF) from TO oil plus fresh oil. Increases in relative liver wts. and the concns. of microsomal protein and endogenous malondialdehyde were obsd. when TO oil or NUAF plus fresh oil were fed rather than pure fresh oil with 2 types of dietary protein, casein and soybean. Both the basal and DDT-induced mixed function oxidase activities were higher in animals fed TO oil and NUAF than in those given fresh oil. The TO oil also increased cytochrome P-450 and the activity of **S-adenosylmethionine**:phosphatidylethanolamine methyltransferase whereas the NUAF did not. Oxidized fat thus appears to stimulate smooth endoplasmic reticulum proliferation and induce a complex of microsomal enzymes.

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=> d que stat l42
L2              1 SEA FILE=REGISTRY ABB=ON  29908-03-0
L3              1 SEA FILE=REGISTRY ABB=ON  "S-ADENOSYLMETHIONINE CHLORIDE"/CN
L4              1 SEA FILE=REGISTRY ABB=ON  "S-ADENOSYLMETHIONINE IODIDE"/CN
L5              3 SEA FILE=REGISTRY ABB=ON  L2 OR L3 OR L4
L6              1 SEA FILE=REGISTRY ABB=ON  "STEARIC ACID"/CN
L7              1 SEA FILE=REGISTRY ABB=ON  "CARNUBA WAX"/CN
L8              1 SEA FILE=REGISTRY ABB=ON  BEESWAX/CN
L9              1 SEA FILE=REGISTRY ABB=ON  "POLYOXYETHYLENE SORBITAN MONOOLEATE"
                  /CN
L10             1 SEA FILE=REGISTRY ABB=ON  "CETYL ALCOHOL"/CN
L11             1 SEA FILE=REGISTRY ABB=ON  "GLYCERYL MONOSTEARATE"/CN
L12             1 SEA FILE=REGISTRY ABB=ON  "CETOSTEARYL ALCOHOL"/CN
L13             2 SEA FILE=REGISTRY ABB=ON  "GLYCERYL BEHENATE"/CN
L14             9 SEA FILE=REGISTRY ABB=ON  L6 OR L7 OR L8 OR L9 OR L10 OR L11
                  OR L12 OR L13
L15             1 SEA FILE=REGISTRY ABB=ON  DICHLOROMETHANE/CN
L16             1 SEA FILE=REGISTRY ABB=ON  "ISOPROPYL ALCOHOL"/CN
L17             2 SEA FILE=REGISTRY ABB=ON  L15 OR L16
L18             1 SEA FILE=REGISTRY ABB=ON  "ARACHIS OIL"/CN
L19             1 SEA FILE=REGISTRY ABB=ON  ("WHEAT GERM OIL"/CN OR "WHEAT GERM
                  OILS"/CN)
L20             1 SEA FILE=REGISTRY ABB=ON  "CORN OIL"/CN
L21             1 SEA FILE=REGISTRY ABB=ON  "RICE BRAN OIL"/CN
L22             4 SEA FILE=REGISTRY ABB=ON  L18 OR L19 OR L20 OR L21
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L24             1 SEA FILE=REGISTRY ABB=ON  "BUTYLATED HYDROXYTOLUENE"/CN
L25             1 SEA FILE=REGISTRY ABB=ON  "BUTYLATED HYDROXYANISOLE"/CN
L26             3 SEA FILE=REGISTRY ABB=ON  L23 OR L24 OR L25
L27             1 SEA FILE=REGISTRY ABB=ON  METHYLPARABEN/CN
L28             1 SEA FILE=REGISTRY ABB=ON  PROPYLPARABEN/CN
L29             2 SEA FILE=REGISTRY ABB=ON  L27 OR L28
L31             1 SEA FILE=HCAPLUS ABB=ON   (L5 OR S(W)ADENOSYLMETHIONINE OR
                  (MONOSULFATE OR MONOSULPHATE OR DISULFATE OR DISULPHATE)(W)TOSY
                  LATE) AND (SOFTGEL OR SOFT(W)GEL)
L33            64 SEA FILE=HCAPLUS ABB=ON   (L5 OR S(W)ADENOSYLMETHIONINE?) AND
                  (?CAPSUL? OR ?DRUG?(W)?DELIVER?)
L34             8 SEA FILE=HCAPLUS ABB=ON   L33 AND (GEL? OR ?SOFTGEL? OR ?SOFT
                  GEL?)
L35             4 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
                  (L17 OR DICHLOROMETHAN? OR ISOPROPYL ALCOHOL OR ISOPROPYLALCOHO
                  L OR ISOPROPANOL)
L36             3 SEA FILE=HCAPLUS ABB=ON   (L5 OR S-ADENOSYLMETHIONINE?) AND
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                (L22 OR (SOYA OR SOY OR ARACHIS OR WHEAT(W)GERM OR CORN OR
                RICE(W)BRAN)(W)OIL)
L37          3 SEA FILE=HCAPLUS ABB=ON  (L5 OR S-ADENOSYLMETHIONINE?) AND
                (L26 OR NDGA OR (BUTYL?(W)HYDROXY)(W)(TOLUEN? OR ANISOL?))
L38          2 SEA FILE=HCAPLUS ABB=ON  (L5 OR S-ADENOSYLMETHIONINE?) AND
                (L29 OR (METHYL OR PROPYL)(W)PARABEN OR METHYLPARABEN OR
                PROPYLPARABEN)
L39         13 SEA FILE=HCAPLUS ABB=ON  (L5 OR S(W)ADENOSYLMETHIONINE?) AND
                (L14 OR STEARIC ACID OR (CARNUABA OR CARNUBA OR BEE?)(W)WAX OR
                BEESWAX OR POLYOXYETHYLENE(W)SORBITAN(W)MONOOLEATE? OR (CETYL
                OR CETOSTEARYL)(W)ALCOHOL? OR GLYCERYL(W)(MONOSTEARAT? OR
                BEHENAT? OR BEHANAT?))
L40         27 SEA FILE=HCAPLUS ABB=ON  L31 OR L34 OR L35 OR L36 OR L37 OR
                L38 OR L39
L41         21 SEA L40
L42         16 DUP REMOVE L41 (5 DUPLICATES REMOVED)


=> d ibib abs 1-16

L42  ANSWER 1 OF 16  WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER:     2002-315281 [35]   WPIDS
DOC. NO. CPI:         C2002-091709
TITLE:                Polymer useful in medical therapy for treating e.g.
                      cancer comprises a backbone containing ester, thioester
                      or amide linkages and a group yielding a biologically
                      active compound.
DERWENT CLASS:        A23 A96 B05 B07 C03
INVENTOR(S):          UHRICH, K E
PATENT ASSIGNEE(S):   (UHRI-I) UHRICH K E; (RUTF) UNIV RUTGERS STATE NEW JERSEY
COUNTRY COUNT:        96
PATENT INFORMATION:

     PATENT NO   KIND DATE     WEEK      LA   PG
     -------------------------------------------
     WO 2002009768 A2 20020207 (200235)* EN   51
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU
            SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
     AU 2001078055 A  20020213 (200238)
     US 2002071822 A1 20020613 (200243)

APPLICATION DETAILS:

     PATENT NO   KIND                  APPLICATION      DATE
     ---------------------------------------------------------
     WO 2002009768 A2                  WO 2001-US23747  20010727
     AU 2001078055 A                   AU 2001-78055    20010727
     US 2002071822 A1 Provisional      US 2000-220707P  20000727
                      Provisional      US 2001-261337P  20010112
                                       US 2001-917194   20010727

FILING DETAILS:
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PATENT NO	KIND		PATENT NO
AU 2001078055 A	Based on		WO 200209768

PRIORITY APPLN. INFO: US 2001-261337P 20010112; US 2000-220707P 20000727; US 2001-917194 20010727

AN 2002-315281 [35] WPIDS

AB WO 200209768 A UPAB: 20020603

NOVELTY - A polymer comprises a backbone containing ester, thioester or amide linkages and at least one group which will yield a biologically active compound on hydrolysis of the polymer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(a) a biocompatible and bio-degradable polyester or polyamide comprising the biologically active compound containing at least 2 alcohol or phenol groups or at least two amine groups co-polymerized to bis(acyl) chlorides or carboxylic acids;

(b) producing the biocompatible and bio-degradable polyester or polyamide by co-polymerizing the biologically active compound with carboxylic acid groups or bis(acyl) chlorides; and

(c) delivering the biologically active compound to a host by administering the biocompatible and bio-degradable polyester or polyamide.

ACTIVITY - Cytostatic; Antipsoriatic; Dermatological; Anti-inflammatory; Analgesic; Antiparkinsonian; Antithrombotic; Antibacterial; Fungicide; Immunosuppressive.

No details of tests showing activity are given.

MECHANISM OF ACTION - None given in the source material.

USE - In medical therapy for the manufacture of a medicament for treating diseases e.g. cancer, psoriasis, inflammatory bowel disease, skin cancers, brain tumor, pain or Parkinson's disease in mammals preferably humans; and useful as they have anti-bacterial, antiinflammatory, antifungal, antithrombotic and immunosuppressive activities (all claimed). Also useful in dental and cosmetic applications, in medical implant applications to form shaped articles such as vascular grafts and stents, bone plates, sutures, implantable sensors, implantable **drug delivery** devices, stents for tissue regeneration and other articles that decompose into non-toxic components within known time period. In oral formulations and products e.g. skin moisturizers, cleaners, pads plasters, lotions, creams, **gels**, ointments, solutions, shampoos, tanning products and lipsticks.

ADVANTAGE - The polymers can be readily processed into pastes or solvent cast to yield films coatings, microspheres and fibres with different geometric shapes for design of various medical implants and may also be processed by compression molding and extrusion.

Dwg.0/0

L42 ANSWER 2 OF 16 WPIDS (C) 2002 THOMSON DERWENT

ACCESSION NUMBER:	2002-329425 [36] WPIDS
DOC. NO. CPI:	C2002-095110
TITLE:	Polymers useful in medical therapy for treating e.g. cancer comprises a backbone containing an anhydride linkage and a group yielding a biologically active compound.
DERWENT CLASS:	A28 A96 B05 B07 C03
INVENTOR(S):	UHRICH, K E
PATENT ASSIGNEE(S):	(UHRI-I) UHRICH K E; (RUTF) UNIV RUTGERS STATE NEW JERSEY
COUNTRY COUNT:	96
PATENT INFORMATION:	

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002009767	A2	20020207	(200236)*	EN	38

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001078052 A 20020213 (200238)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002009767	A2	WO 2001-US23740	20010727
AU 2001078052	A	AU 2001-78052	20010727

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001078052	A	Based on	WO 200209767

PRIORITY APPLN. INFO: US 2000-627215 20000727

AN 2002-329425 [36] WPIDS

AB WO 200209767 A UPAB: 20020610

NOVELTY - A polymer comprises a backbone containing an anhydride linkage and at least one group which will yield a biological compound (A) on hydrolysis of the polymer. (A) is not an ortho-hydroxy aryl carboxylic acid.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(a) a pharmaceutical composition comprising (A) and a carrier;

(b) producing a biocompatible and biodegradable polyester or polyamide which degrades into (A). The method involves co-polymerizing (A) containing at least 2 alcohol or phenol groups or at least 2 amine groups with carboxylic acid groups or bis(acyl)chlorides; and

(c) delivering (A) to a host by administering the biocompatible and biodegradable polyester or polyamide to the host.

ACTIVITY - Antibacterial; Antifungal; Cytostatic; Antiinflammatory; Immunosuppressive.

MECHANISM OF ACTION - None given.

USE - In medical therapy of the manufacture of a medicament for treating diseases e.g. cancer in mammals preferably humans (all claimed), in polymeric **drug delivery** systems containing low molecular weight drugs, in medical, dental and cosmetic applications as vascular grafts and stents, bone plates, sutures, implantable sensors, implantable **drug delivery** devices, stents for tissue regeneration and other articles that decompose into non-toxic components within a known time period. The polymers can also be incorporated into oral formulations and products such as skin moisturizers, cleansers, pads, plasters, lotions, creams, **gels**, ointments, solutions, shampoos, tanning products and lipsticks.

ADVANTAGE - The polymers have enhanced solubility and processability as well as degradation properties. The polymers can be readily processed into pastes or solvent cast to yield films, coatings, microspheres and

fibers with different geometric shapes of design of various medical implants and may also be processed by compression molding and extrusion.
Dwg.0/0

L42 ANSWER 3 OF 16 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 2002-602515 [65] WPIDS
DOC. NO. CPI: C2002-170599
TITLE: **Capsule** formulation for use as health food or pharmaceuticals, contains liquid containing **S-adenosylmethionine** or its salt, dispersed or suspended in oil solution, and sealed in **gelatin capsule**.
DERWENT CLASS: B02 B07
PATENT ASSIGNEE(S): (ARIM-N) ARIMENTO KOGYO KK; (KOJK) KOHJIN CO LTD; (MIYA-N) MIYAKO KAGAKU KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2002145783	A	20020522	(200265)*		6

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2002145783	A	JP 2000-338007	20001106

PRIORITY APPLN. INFO: JP 2000-338007 20001106
AN 2002-602515 [65] WPIDS
AB JP2002145783 A UPAB: 20021010
NOVELTY - A **capsule** formulation contains liquid containing **S-adenosylmethionine** or its salt, dispersed or suspended in the oil solution. The resulting suspension is sealed in a **gelatin capsule**.
ACTIVITY - Antidepressant; antiarthritic; hepatotropic. No test details are given for the above mentioned activity.
MECHANISM OF ACTION - None given.
USE - For producing **S-adenosylmethionine** or its salt, containing **capsule** formulation which is used as health food or pharmaceutical product. **S-adenosylmethionine** or its salt, improves depression, arthritis, liver disease (liver cirrhosis).
ADVANTAGE - **S-adenosylmethionine** or its salt is easily dispersed in edible oil. The **capsule** formulation is stable as the **capsule** outer layer hinders the absorption of atmospheric moisture content by **S-adenosylmethionine** or its salt (which is hydroscopic).
Dwg.0/0

L42 ANSWER 4 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:296447 BIOSIS
DOCUMENT NUMBER: PREV200100296447
TITLE: Glycine N-methyltransferase is up-regulated by all-trans- and 13-cis-retinoic acid in rats.
AUTHOR(S): Rowling, Matthew J. (1); Schalinske, Kevin L. (1)
CORPORATE SOURCE: (1) Food Science and Human Nutrition, Iowa State

University, Ames, IA, 50011 USA
SOURCE: FASEB Journal, (March 7, 2001) Vol. 15, No. 4, pp. A602. print.
Meeting Info.: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA March 31-April 04, 2001
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Glycine N-methyltransferase (GNMT) functions to regulate **S-adenosylmethionine** (SAM) levels and the ratio of SAM/S-adenosylhomocysteine (SAH). SAM is a universal methyl group donor and up-regulation of GNMT may lead to wastage of methyl groups required for transmethylation reactions. Previous work in our laboratory demonstrated that dietary treatment of rats with 13-cis-retinoic acid (13-CRA) decreased the hepatic concentration of SAM and the ratio of SAM/SAH. In this study, we examined the ability of 13-CRA, as well as all-trans-retinoic acid (ATRA), to regulate hepatic GNMT as a potential basis for our earlier observations. Male Sprague Dawley rats were fed either a control (10% casein + 0.3% methionine) diet or a control diet supplemented with 1% methionine (MS diet). Following a 5-day acclimation period, an equal number of rats from each dietary group were orally given either ATRA, 13-CRA (both @ 30 mumol/kg body weight), or vehicle (**corn oil**) daily for 10 days. For rats fed the control diet, administration of both 13-CRA and ATRA elevated the hepatic GNMT activity 1.5- (0.256 nmol/min mg protein) and 1.3-fold (0.230 nmol/min mg protein), respectively, compared to the control (vehicle-treated) group (0.172 nmol/min mg protein). Similar results were exhibited by rats fed the MS diet. Moreover, the retinoid-induced elevations in enzymatic activity were reflected in the abundance of GNMT protein. As expected, hepatic SAM levels and the SAM/SAH ratio decreased concomitantly with an increase in GNMT activity. These data suggest that the up-regulation of GNMT by retinoid administration may be due to the induction of GNMT protein production. To our knowledge, this is the first report of a compound that induces GNMT activity at the transcriptional and/or translational level.

L42 ANSWER 5 OF 16 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-059906 [05] WPIDS
DOC. NO. CPI: C1999-017742
TITLE: Non watery low alcohol sake - contains ethyl caproate, **isopropyl alcohol**, n-propanol and isobutanol.
DERWENT CLASS: D16
INVENTOR(S): ASAHI, A; BOU, M; MORISHITA, Y
PATENT ASSIGNEE(S): (ASAH) ASAHI KASEI KOGYO KK
COUNTRY COUNT: 3
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9855592	A1	19981210	(199905)*	JA	42
W: AU US					
JP 11046751	A	19990223	(199918)		14
AU 9870787	A	19981221	(199919)		
JP 3035592	B2	20000424	(200025)		14

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9855592	A1	WO 1998-JP1833	19980422
JP 11046751	A	JP 1998-117874	19980414
AU 9870787	A	AU 1998-70787	19980422
JP 3035592	B2	JP 1998-117874	19980414

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9870787	A	Based on	WO 9855592
JP 3035592	B2	Previous Publ.	JP 11046751

PRIORITY APPLN. INFO: JP 1997-160681 19970604
AN 1999-059906 [05] WPIDS
AB WO 9855592 A UPAB: 19990203
Low alcohol sake contains 4-12% ethanol with a sake-meter of -50 to -25 and acidity of 1.5-4, 0.05-10 ppm ethyl caproate, at least 90 ppm **isopropyl alcohol**, at least 60 ppm n-propanol, at least 40 ppm isobutanol and sustaining the characteristic sake flavour.

The ethanol content is preferably 6-9 with sake-meter of -45 to -30 and acidity of 2-4. The sake contains 0.05-10 (preferably 0.05-3) ppm ethyl caproate, 0.01-1 (preferably 0.01-0.3) ppm ethyl caprylate, 0.05-10 (preferably 0.05-3) ppm isoamyl acetate, 2-10 (preferably 2-10) ppm acetaldehyde, 0.002-0.05 (preferably 0.002-0.01) ppm isobutyraldehyde, 0.001-0.05 (preferably 0.001-0.01) ppm isovaleraldehyde, 15-90 (preferably 15-50) ppm isoamyl alcohol, 10-60 (preferably 10-40) ppm n-propanol and 4-40 (preferably 4-20) isobutanol. The pyruvic acid concentration is at least 90 (particularly at least 40) ppm with at least 30 (particularly at least 0.2) mM total of **S-adenosylmethionine** and methylthioadenosine. The sake is brewed from cereals, koji (malt), water and yeast.

ADVANTAGE - The sake is not watery and has balanced sour and sweet tastes and sustained characteristics of sake flavour and aroma.
Dwg.0/0

L42 ANSWER 6 OF 16 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1998451507 MEDLINE
DOCUMENT NUMBER: 98451507 PubMed ID: 9780227
TITLE: Butylated hydroxytoluene modulates DNA methylation in rats.
AUTHOR: Vanyushin B F; Lopatina N G; Wise C K; Fullerton F R; Poirier L A
CORPORATE SOURCE: Division of Molecular Basis of Ontogenesis, A.N. Belozersky Institute of Physico-Chemical Biology, M.V. Lomonosov Moscow State University, Russia.. Vanyushin@moo.genebee.msu.su
SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (1998 Sep 15) 256 (3) 518-27.
Journal code: 0107600. ISSN: 0014-2956.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199811
ENTRY DATE: Entered STN: 19990106

Last Updated on STN: 19990106
Entered Medline: 19981105

AB The major observation of this investigation is that a single intraperitoneal injection of butylated hydroxytoluene (BHT, 60 mg/kg body mass) results within a few hours in a strong increase in nuclear DNA(cytosine-5)-methyl transferase (methyl transferase) activity in the liver, kidneys, heart, spleen, brain and lungs of male rats. In most organs, the rise in methyl transferase activity is observed as early as 4 h after BHT injection, it reaches a maximum at 8 h and then, except for lungs and brain, gradually decreases to its initial level at 16 h. At the maximum induction times, the methyl transferase activity in liver, kidney and spleen increases by about 16-, 3- and 5-fold, respectively. A second BHT injection at 96 h results in a secondary rise in hepatic methyl transferase activity. Isoelectric focusing electrophoresis of control rat liver nuclear extracts showed methyl transferase activity in the pI 4.7 and 7.4 protein fractions. Both fractions methylate calf thymus DNA better than they do Drosophila melanogaster DNA. In similar extracts from BHT-treated rats, the methyl transferase activity is found in three protein fractions with pI values equal to 4.0, 6.2 and 9.5, respectively. Most of the methyl transferase fractions from the livers of BHT-treated rats methylate the completely unmethylated D. melanogaster DNA better than they do calf thymus DNA. Thus, BHT induces methyl transferase activity that preferably provides de novo DNA methylation. BHT injection had no significant effect on the hepatic contents of **S-adenosylmethionine** (AdoMet), S-adenosylhomocysteine (AdoHcy) and AdoMet/AdoHcy ratios. While BHT injection did not alter the 5-methyldeoxycytidine content in liver DNA, it did appear to alter such content in other organs. BHT appears to cause the reversible changes in the methylation status of an internal cytosine residue in some CCGG sites of the rat liver cytosine DNA-methyl transferase gene. BHT induces also hypomethylation of the renal methyl transferase gene and the hepatic c-Ha-ras gene. While BHT also increases the hepatic mRNA transcripts for the **S-adenosylmethionine** synthetase and the p53 genes, it had no detectable effects on the corresponding mRNA transcripts for methyl transferase homologous to murine methyl transferase. Thus, BHT induces tissue-specific reversible changes in methyl transferase activity and methylation of total DNA and various genes in rats. A strong increase in methyl transferase activity in rat liver is accompanied with BHT-induced change in the methyl transferase set observed in this organ.

L42 ANSWER 7 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96157008 EMBASE
DOCUMENT NUMBER: 1996157008
TITLE: Nutrition and bile formation.
AUTHOR: Tuchweber B.; Yousef I.M.; Ferland G.; Perea A.
CORPORATE SOURCE: Departement de Nutrition, Universite de Montreal, 2405 chemin Cote Sainte-Catherine,Montreal, Que. H3T 1A8, Canada
SOURCE: Nutrition Research, (1996) 16/6 (1041-1080).
ISSN: 0271-5317 CODEN: NTRSDC
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 029 Clinical Biochemistry
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB This review summarizes current knowledge on mechanisms involved in hepatic bile formation and the role of diet as a modulator of this important liver function. It also includes cholestasis and nutritional interventions known

to exert a beneficial effect in this pathology. Two components of the bile flow have been described: bile acid dependent (BADF) and bile acid independent (BAIF) flows and, several cellular structures are known to be involved in their generation. The membrane's enzyme activities, transporters and pumps play a particularly important role in bile secretion. Of the macronutrients, dietary protein has been shown to markedly affect bile flow. Protein deficient diet results in a decrease of both BADF and BAIDF, and in increased susceptibility to bile acid (BA)-induced cholestasis. Amino acid mixtures included in TPN solutions as well as certain individual amino acids can induce cholestasis mainly through alterations of plasma membrane composition and function. Supplementation with taurine and S-adenosyl methionine prevents these forms of cholestasis by maintaining membrane integrity and function. The quantity and quality of dietary lipid influences bile secretion. Enhanced bile flow was observed with high polyunsaturated fat intake and was attributed to both higher BADF and BAIDF. Diets enriched in fish oil were found to result in the generation of greater bile flow when compared to diets enriched in **corn oil**. Dietary phospholipid (soybean lecithin) supplementation increases bile secretion and exerts a beneficial effect against BA-induced cholestasis probably by maintenance of membrane integrity. Although there is much information on the role of dietary carbohydrates, fibers, minerals and vitamins on cholesterol and BA metabolism, relatively little is known about their implication in bile formation. Finally certain dietary strategies such as energy restriction and starve-refeed regimen can enhance bile secretion by their effects on BADF and BAIDF through maintenance of membrane function. In conclusion, diet is an important modulator of bile formation and secretion by affecting BA synthesis and metabolism as well as membrane structure and function.

L42 ANSWER 8 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 94272996 EMBASE
DOCUMENT NUMBER: 1994272996
TITLE: Heterologous expression of the bchM gene product from Rhodobacter **capsulatus** and demonstration that it encodes S-adenosyl-L-methionine:Mg- protoporphyrin IX methyltransferase.
AUTHOR: Bollivar D.W.; Jiang Z.-Y.; Bauer C.E.; Beale S.I.
CORPORATE SOURCE: Division of Biology and Medicine, Brown University,Providence, RI 02912, United States
SOURCE: Journal of Bacteriology, (1994) 176/17 (5290-5296). ISSN: 0021-9193 CODEN: JOBAAY
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The bacteriochlorophyll biosynthesis gene, bchM, from Rhodobacter **capsulatus** was previously believed to code for a polypeptide involved in formation of the cyclopentone ring of protochlorophyllide from Mg- protoporphyrin IX monomethyl ester. In this study, R. **capsulatus** bchM was expressed in Escherichia coli and the gene product was subsequently demonstrated by enzymatic analysis to catalyze methylation of Mg- protoporphyrin IX to form Mg-protoporphyrin IX monomethyl ester. Activity required the substrates Mg-protoporphyrin IX and S-adenosyl-L-methionine. 14C-labeled product was formed in incubations containing 14C-methyl- labeled S-adenosyl-L-methionine. On the basis of these and previous results, we also conclude that the bchH gene, which was

previously reported to code for Mg-protoporphyrin IX methyltransferase, is most likely involved in the Mg chelation step.

L42 ANSWER 9 OF 16 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 93167811 MEDLINE
DOCUMENT NUMBER: 93167811 PubMed ID: 8434913
TITLE: Purification of a 40-kilodalton methyltransferase active in the aflatoxin biosynthetic pathway.
AUTHOR: Keller N P; Dischinger H C Jr; Bhatnagar D; Cleveland T E; Ullah A H
CORPORATE SOURCE: Southern Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture, New Orleans, Louisiana 70179.
SOURCE: APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (1993 Feb) 59 (2) 479-84.
Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199303
ENTRY DATE: Entered STN: 19930402
Last Updated on STN: 19930402
Entered Medline: 19930317

AB The penultimate step in the aflatoxin biosynthetic pathway of the filamentous fungi Aspergillus flavus and A. parasiticus involves conversion of sterigmatocystin to O-methylsterigmatocystin. An **S-adenosylmethionine**-dependent methyltransferase that catalyzes this reaction was purified to homogeneity (> 90%) from 78-h-old mycelia of A. parasiticus SRRC 163. Purification of this soluble enzyme was carried out by five **soft-gel** chromatographic steps: cell debris remover treatment, QMA ACELL chromatography, hydroxylapatite-Ultrogel chromatography, DEAE-Spherodex chromatography, and Octyl Avidgel chromatography, followed by MA7Q high-performance liquid chromatography. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis of the protein peak from this step on silver staining identified a single band of approximately 40 kDa. This purified protein was distinct from the dimeric 168-kDa methyltransferase purified from the same fungal strain under identical growth conditions (D. Bhatnagar, A. H. J. Ullah, and T. E. Cleveland, Prep. Biochem. 18:321-349, 1988). The chromatographic behavior and N-terminal sequence of the 40-kDa enzyme were also distinct from those of the 168-kDa methyltransferase. The molar extinction coefficient of the 40-kDa enzyme at 278 nm was estimated to be 4.7 x 10(4) M-1 cm-1 in 50 mM potassium phosphate buffer (pH 7.5).

L42 ANSWER 10 OF 16 MEDLINE
ACCESSION NUMBER: 92325007 MEDLINE
DOCUMENT NUMBER: 92325007 PubMed ID: 1624419
TITLE: Methylation of FrzCD, a methyl-accepting taxis protein of Myxococcus xanthus, is correlated with factors affecting cell behavior.
AUTHOR: McBride M J; Kohler T; Zusman D R
CORPORATE SOURCE: Department of Molecular and Cell Biology, University of California, Berkeley 94720.
CONTRACT NUMBER: 1 F32 GM12356-01A1 (NIGMS)
GM20509 (NIGMS)
SOURCE: JOURNAL OF BACTERIOLOGY, (1992 Jul) 174 (13) 4246-57.
Journal code: 2985120R. ISSN: 0021-9193.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199208
ENTRY DATE: Entered STN: 19920821
Last Updated on STN: 19970203
Entered Medline: 19920807

AB Myxococcus xanthus, a nonflagellated gliding bacterium, exhibits multicellular behavior during vegetative growth and fruiting body formation. The frizzy (frz) genes are required to control directed motility for these interactions. The frz genes encode proteins that are homologous to all of the major enteric chemotaxis proteins, with the exception of CheZ. In this study, we characterized FrzCD, a protein which is homologous to the methyl-accepting chemotaxis proteins from the enteric bacteria. FrzCD, unlike the other methyl-accepting chemotaxis proteins, was found to be localized primarily in the cytoplasmic fraction of cells. FrzCD migrates as a ladder of bands on sodium dodecyl sulfate-polyacrylamide gel electrophoresis, reflecting heterogeneity due to methylation or demethylation and to deamidation. FrzCD was shown to be methylated in vivo when cells were exposed to yeast extract or Casitone and demethylated when starved in buffer. We used the methylation state of FrzCD as revealed by Western blot (immunoblot) analyses to search for stimuli that are recognized by the frz signal transduction system. Common amino acids, nucleotides, vitamins, and sugars were not recognized, but certain lipids and alcohols were recognized. For example, the saturated fatty acids capric acid and lauric acid stimulated FrzCD methylation, whereas a variety of other saturated fatty acids did not. Lauryl alcohol and lipoic acid also stimulated methylation, as did phospholipids containing lauric acid. In contrast, several short-chain alcohols, such as isoamyl alcohol, and some other solvents caused demethylation. The relatively high concentrations of the chemicals required for a response may indicate that these chemicals are not the relevant signals recognized by M. xanthus in nature. Isoamyl alcohol and **isopropanol** also had profound effects on the behavior of wild-type cells, causing them to reverse continuously. Cells of frzB, frzF, and frzG mutants also reversed continuously in the presence of isoamyl alcohol, whereas cells of frzA, frzCD, or frzE mutants did not. On the basis of the data presented, we propose a model for the frz signal transduction pathway in M. xanthus.

L42 ANSWER 11 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91347922 EMBASE
DOCUMENT NUMBER: 1991347922
TITLE: Diet and toxicity of chemicals.
AUTHOR: Rogers A.E.
CORPORATE SOURCE: Department of Pathology, Mallory Institute of Pathology, Boston University School of Medicine, 80 E. Concord Street, Boston, MA, United States
SOURCE: Journal of Nutritional Biochemistry, (1991) 2/11 (579-593). ISSN: 0955-2863 CODEN: JNBIEL
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
029 Clinical Biochemistry
052 Toxicology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English

SUMMARY LANGUAGE: English

AB Nutrient and non-nutrient diet components influence the biological activity of many chemicals in different ways and by different mechanisms. The most intensive investigation has focused on interactions between diet and chemical carcinogenicity, and some general metabolic interactions have been elucidated that are applicable to groups of chemicals or diet components. Similar interactions are known for noncarcinogenic chemicals and for drugs. In most cases, however, present knowledge consists of observed phenomena without mechanisms or explanations. These cases present opportunities for research that will permit greater understanding and generalization of results.

L42 ANSWER 12 OF 16 MEDLINE DUPLICATE 3

ACCESSION NUMBER: 88326968 MEDLINE

DOCUMENT NUMBER: 88326968 PubMed ID: 3415996

TITLE: 1,2-Dimethylhydrazine-induced premalignant alterations in the **S-adenosylmethionine** /S-adenosylhomocysteine ratio and membrane lipid lateral diffusion of the rat distal colon.

AUTHOR: Halline A G; Dudeja P K; Brasitus T A

CORPORATE SOURCE: Department of Medicine, University of Chicago, IL.

CONTRACT NUMBER: CA 36745 (NCI)

SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (1988 Sep 15) 944 (1) 101-7. Journal code: 0217513. ISSN: 0006-3002.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198810

ENTRY DATE: Entered STN: 19900308
Last Updated on STN: 19980206
Entered Medline: 19881027

AB Prior studies by our laboratory, utilizing the 1,2-dimethylhydrazine experimental model of colonic cancer, had shown that administration of this procarcinogen for 5 weeks was found to increase phospholipid methyltransferase activity and the fluidity of rat distal colonic brush-border membranes. The present studies were conducted to further explore these 'premalignant' colonic phenomena. Male albino rats of the Sherman strain were subcutaneously injected with dimethylhydrazine (20 mg/kg body weight per week) or diluent for 5 weeks. Animals from each group were killed, distal colonic tissue harvested and the levels of **S-adenosylmethionine**, S-adenosylhomocysteine and decarboxylated **S-adenosylmethionine** measured by high performance liquid chromatography. The activity of methionine adenosyltransferase was also examined in these tissues. Additionally, brush-border membranes were isolated from the distal colonocytes of control and treated-animals and examined and compared with respect to their phospholipid methylation activities as well as their lipid fluidity as assessed by the rotational mobilities of the probes 1,6-diphenyl-1,3,5-hexatriene and DL-12-(9-anthroyl)**stearic acid** and translational mobility of the fluorophore pyrenedecanoic acid. The results of these studies demonstrated: (1) phospholipid methyltransferase activity in rat colonic plasma membranes was increased concomitantly with increases in the cellular levels of **S-adenosylmethionine** and the **S-adenosylmethionine** /S-adenosylhomocysteine ratio in the distal colonic segment of treated-animals; and (2) the lateral diffusion of rat distal colonic brush-border membrane lipids, as assessed by the ratio of excimer/monomer

fluorescence intensities of the fluorophore pyrenedecanoate, was also increased after dimethylhydrazine administration to these animals for 5 weeks.

L42 ANSWER 13 OF 16 MEDLINE
ACCESSION NUMBER: 87184598 MEDLINE
DOCUMENT NUMBER: 87184598 PubMed ID: 3105533
TITLE: Activation of polyamine biosynthetic decarboxylases during the acute phase response of rat liver.
AUTHOR: Scalabrino G; Ferioli M E; Piccoletti R; Bernelli-Zazzera A
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1987 Mar 30) 143 (3) 856-62.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198705
ENTRY DATE: Entered STN: 19900303
Last Updated on STN: 19980206
Entered Medline: 19870518
AB The activities of ornithine decarboxylase and **S-adenosylmethionine** decarboxylase increase in the livers of rats during the acute-phase response to inflammation. The increase reaches its maximum at 2.5 hr from injection of turpentine, and is maintained at the same level for the following 2 days. Pretreatment in vivo with an inhibitor of cyclooxygenase prevents the inflammation-associated increases of both polyamine biosynthetic decarboxylases: an inhibitor of the lipoxygenase pathway seems to counteract only the increase of ornithine decarboxylase. The administration of diaminopropane, an inhibitor of ornithine decarboxylase, has only limited effects on the activation of RNA synthesis by liver nuclei, which occurs 10 hr after turpentine treatment. The results suggest that stimulation of the polyamine biosynthetic decarboxylases is surely part of the acute-phase response and depends on the previous activation of arachidonate metabolism: however its role in supporting later events of the acute-phase response will need further investigations.

L42 ANSWER 14 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 88113448 EMBASE
DOCUMENT NUMBER: 1988113448
TITLE: Study of factors influencing the in vivo methylation of inorganic arsenic in rats.
AUTHOR: Buchet J.P.; Lauwerys R.
CORPORATE SOURCE: Industrial Toxicology and Occupational Health Unit, University of Louvain, 1200 Brussels, Belgium
SOURCE: Toxicology and Applied Pharmacology, (1987) 91/1 (65-74).
ISSN: 0041-008X CODEN: TXAPA
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 035 Occupational Health and Industrial Medicine
052 Toxicology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Previous studies have shown that several factors may influence the methylation of inorganic arsenic by rat liver in vitro (Buchet and

Lauwerys, 1985). The present study attempts to assess the relevance of these observations in vivo. Like man, rat inactivates inorganic arsenic by methylation to monomethylarsonic (MMA) and dimethylarsinic (DMA) acids which are excreted in urine along with unchanged inorganic arsenic (Asi). The administration of **S-adenosylmethionine** alone or in association with reduced (GSH) or oxidized glutathione or acetylcysteine and the increase of hepatic GSH level by butylated hydroxytoluene pretreatment do not stimulate the urinary excretion of the methylated arsenic metabolites following a challenge dose of inorganic arsenic. Conversely a reduction of the hepatic GSH level by phorone pretreatment greatly modifies the metabolism of inorganic arsenic in vivo. A reduction exceeding 90% of the control value leads to a decreased urinary excretion of MMA and DMA and an increased urinary excretion of inorganic arsenic. This is also associated with an increased accumulation of inorganic arsenic in the liver. This suggests that a drastic reduction of GSH level in liver not only impairs the methylation of inorganic arsenic but also impairs its biliary excretion. When GSH depletion is less severe, the total amount of arsenic excreted in urine after a challenge dose of NaAsO2 is not significantly different from that found in unpretreated animals but the proportion of the three metabolic forms is different: MMA is reduced whereas Asi and DMA tend to increase. These changes resemble those found in patients with liver insufficiency (J.P. Buchet, A. Geubel, S. Pauwels, P. Mahieu, and R. Lauwerys (1984). The influence of liver disease on the methylation of arsenite in humans. (Arch. Toxicol. 55, 151-154). Long-term pretreatment of rats with CCl4 slightly reduces the amount of MMA and DMA excreted in urine following a challenge dose of inorganic arsenic. This effect may result from a reduction of GSH transferase activity by CCl4. This study demonstrates the important role of liver GSH in the metabolism of inorganic arsenic in vivo.

L42 ANSWER 15 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1980:82420 BIOSIS
DOCUMENT NUMBER: BR19:19918
TITLE: BIOSYNTHESIS OF METHYLATED NONPOLAR LIPIDS INCLUDING FATTY-ACID METHYL ESTERS BY RAT LUNG MEMBRANES.
AUTHOR(S): ZATZ M; DUDLEY P A; MARKEY S P
CORPORATE SOURCE: LAB. CLIN. SCI., NATL. INST. MENT. HEALTH, BUILD. 10 ROOM 2D47, BETHESDA, MD. 20205, USA.
SOURCE: 71ST ANNUAL MEETING OF THE AM. SOC. BIOL. CHEM. HELD WITH THE BIOPHYS. SOC., NEW ORLEANS, LA., USA, JUNE 1-6, 1980. FED PROC, (1980) 39 (6), ABSTRACT 223.
CODEN: FEPRA7. ISSN: 0014-9446.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L42 ANSWER 16 OF 16 JAPIO COPYRIGHT 2002 JPO
ACCESSION NUMBER: 2002-145783 JAPIO
TITLE: **ENCAPSULATED** PHARMACEUTICAL PREPARATION CONTAINING **S-ADENOSYLMETHIONINE** OR ITS SALTS
INVENTOR: UCHIDA YOSUKE; MIYA TOYOFUMI; SATO KOJI; YOKOYAMA ATSUSHI; FUKAZAWA TAKEHITO; SUGII YOSHIHISA
PATENT ASSIGNEE(S): KOHJIN CO LTD
MIYAKO KAGAKU CO LTD
ARIMENTO KOGYO KK
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2002145783	A	20020522	Heisei	A61K031-7076

APPLICATION INFORMATION
STN FORMAT: JP 2000-338007 20001106
ORIGINAL: JP2000338007 Heisei
PRIORITY APPLN. INFO.: JP 2000-338007 20001106
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2002

AN 2002-145783 JAPIO

AB PROBLEM TO BE SOLVED: To provide an **encapsulated** pharmaceutical preparation containing **S-adenosylmethionine** or its salts, capable of being easily taken by every body, and being expected that its medicinal effect is easily developed.
SOLUTION: This **encapsulated** pharmaceutical preparation is prepared by **encapsulating** a liquid in a **capsule** casing consisting mainly of **gelatin**, wherein the liquid is obtained by dispersing or suspending the **S-adenosylmethionine** or its salts in an oily liquid. A mixture which is obtained by adding an emulsifier and a thickener to an oil is preferably used as the oily liquid.